Super G™ Wireless Access Point

Model # AP421W

User's Manual

Ver. 1B

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1. Introduction

Congratulations on your purchase of this Super G™ Wireless Access Point. The Access Point features four operating modes. The Access Point mode connects your wireless clients with the wired part of your network. The AP client mode acts as a wireless network adapter for your PC or game console. The AP Repeater mode extends the range of your access point/wireless router by repeating the signal to wireless clients that are beyond the broadcasting range of the access point/wireless router. This provides the wireless clients with greater flexibility and mobility. Finally, the Point to Point Bridge mode bridges the network clients from two physically separate LANS into one virtual LAN.

The Access Point is compatible with existing 802.11b and 802.11g network devices so it will work with most existing wireless devices. If you have other Super G™ compatible wireless network device, you can also enable Super G™ on the Access Point for faster transfer rate.*

Instructions for installing and configuring this product can be found in this manual. Before you install and use this product, please read this manual carefully for proper operation of this product.

Package Contents

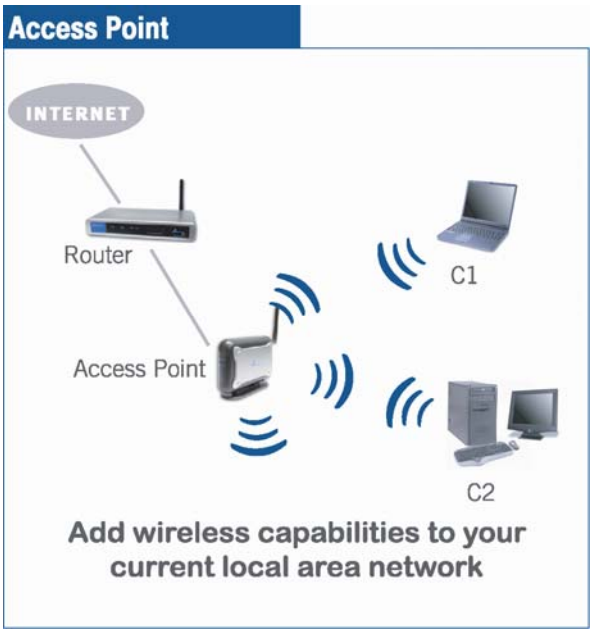
Before you begin the installation, please check the items of your package:

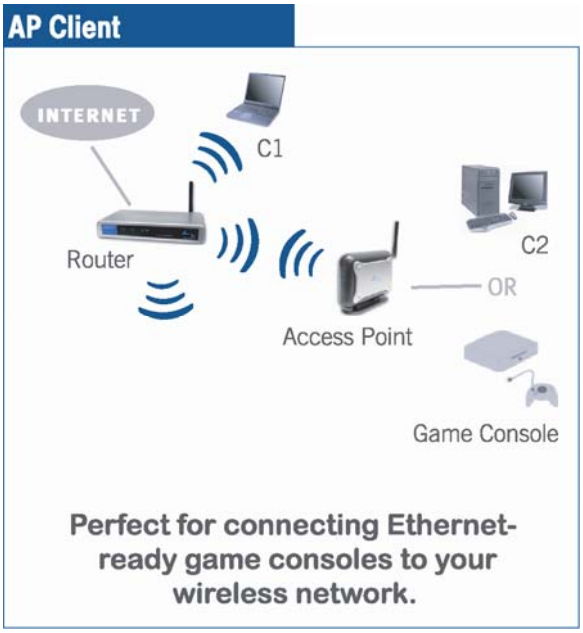
- Super G™ Wireless Access Point
- Power Adapter
- RJ-45 Network Cable
- Antenna
- Quick Installation Guide
- Manual CD

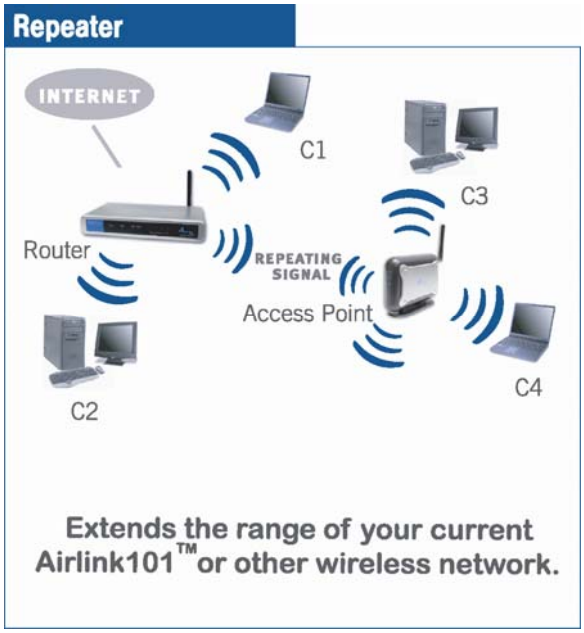
If any item contained is damaged or missing, please contact your local dealer immediately. Also, keep the box and packaging materials in case you need to ship the unit in the future.

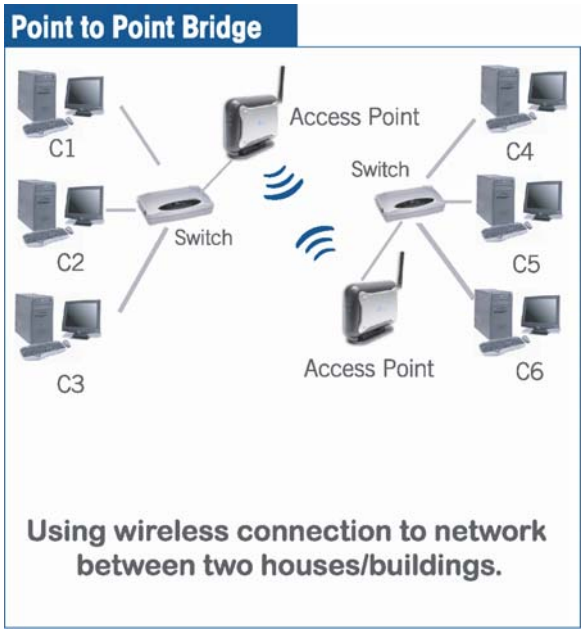
2. Getting Started

Please refer to the following diagrams to determine which operating mode you should use for your network.









If you want to use the AP421W as an Access Point with minimal configuration, just connect it to your existing router or switch with a Cat. 5 network cable and then power it on. The Access Point is ready to use with its default settings:

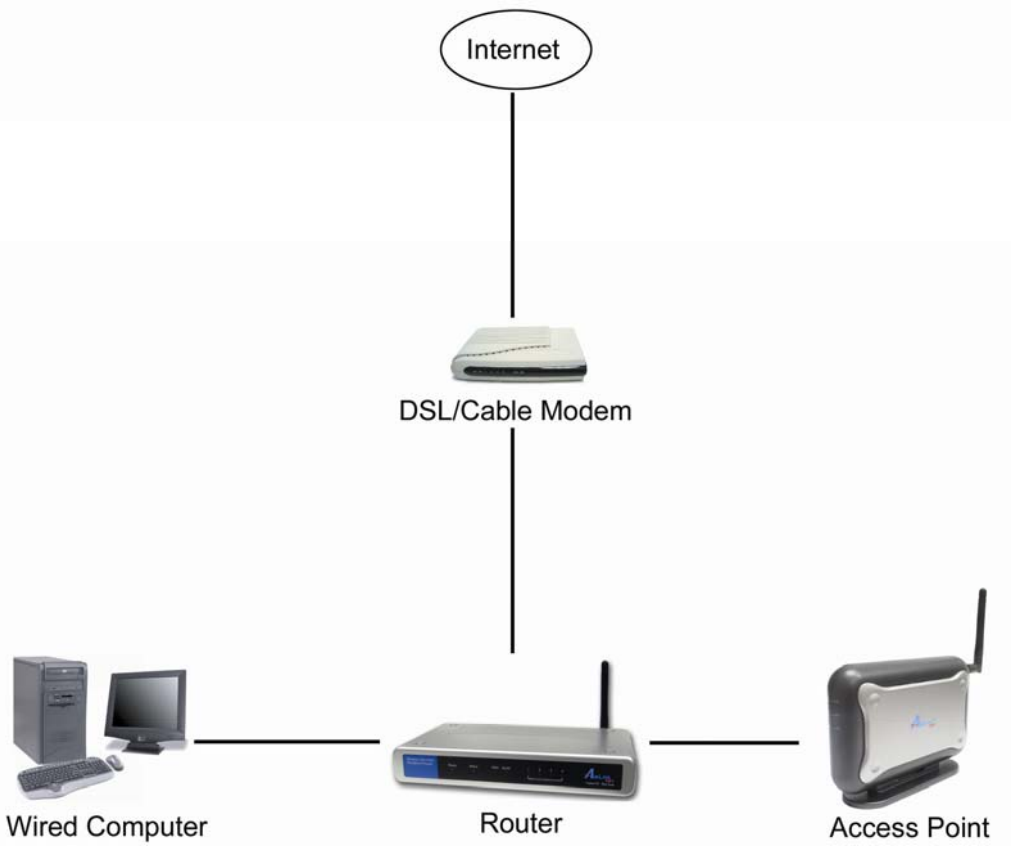
SSID: **default**
Channel: **6**
Encryptions: **disabled**

If you want to configure the Access Point's settings or set it to other operating modes, please follow the rest of this guide.

Step 1 Connect one end of a network cable to the **Network** port of the Access Point and connect the other end to one of the **LAN** ports of the router *(See the diagram below)*.

Step 2 Power on the Access Point by connecting one end of the supplied power adapter to the power jack of the Access Point and connecting the other end to an electrical outlet.

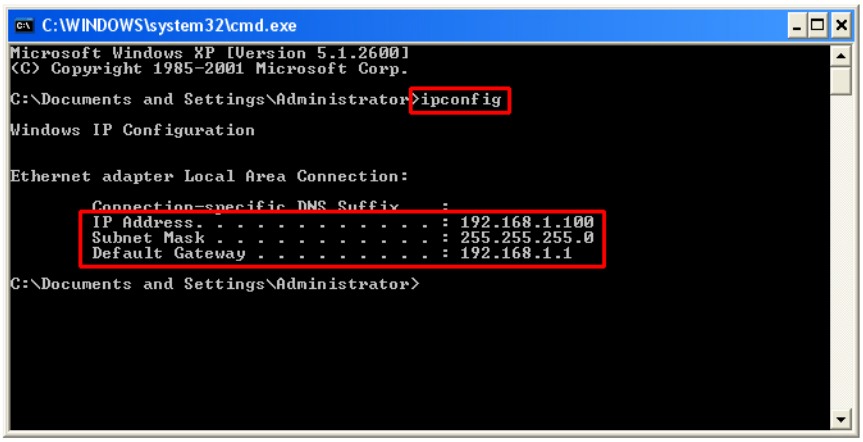
Step 3 Verify that all three lights on the Access Point are lit. If not, verify that all the connections are secure and try again.



3. Gathering Information

Step 1 On the wired computer, go to **Start**, **Run**, type **command** (for Windows 95/98/ME) or **cmd** (for Windows 2000/XP) and click **OK**.

Step 2 Type **ipconfig** and press **Enter**. Your network settings will be displayed.


C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\Administrator>ipconfig
Windows IP Configuration
Ethernet adapter Local Area Connection:
Connection-specific DNS Suffix . :
IP Address. . . . . : 192.168.1.100
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.1.1
C:\Documents and Settings\Administrator>

Step 3 Write down the values for the **IP Address**, **Subnet Mask**, and **Default Gateway** on a piece of paper.

Step 4 If you want to set the AP421W to a mode other than an Access Point, write down the following values for your existing wireless router or AP:

1. **SSID (Network Name)**
2. **Channel Number**
3. **Wireless Security Settings**

The AP421W needs to use the same wireless settings in order for it to work properly. You may gather these information from the web configuration utility of your wireless router.

Step 5 Refer to the **IP Address** you've written down from **Step 3**.

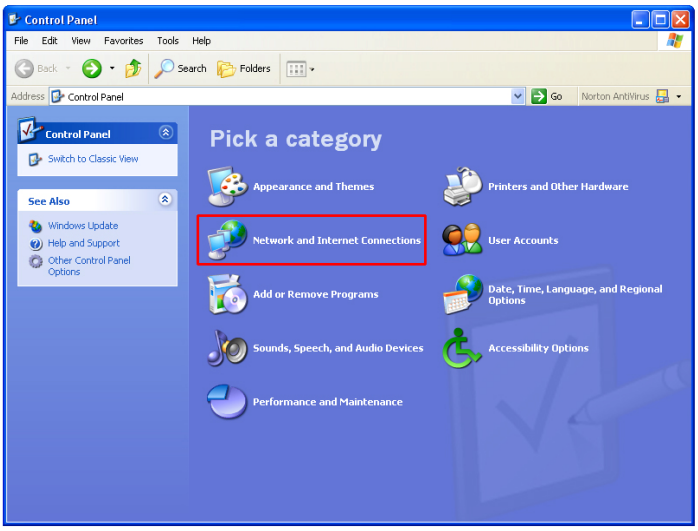
If the first three numbers of your **IP Address** are **192.168.1**, then you do not need to configure your computer's IP Address. Please continue to **Section 5, Using Web Configuration Utility**.

If the first three numbers of your **IP Address** are not **192.168.1**, (Ex. **192.168.2**), then please refer to the next section for instructions on how to change the IP Address.

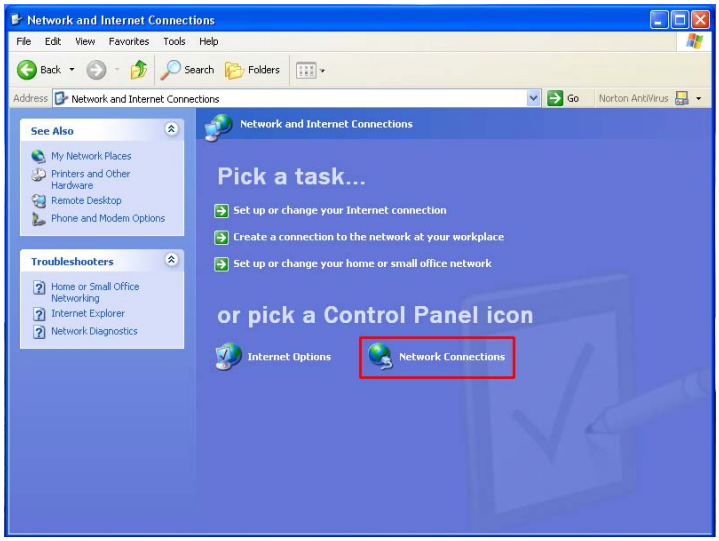
4. Configuring Network Address

This section describes how to change your computer's IP Address to access the Access Point's Web Configuration Utility and then to change the Access Point's IP Address to match your existing Network Address.

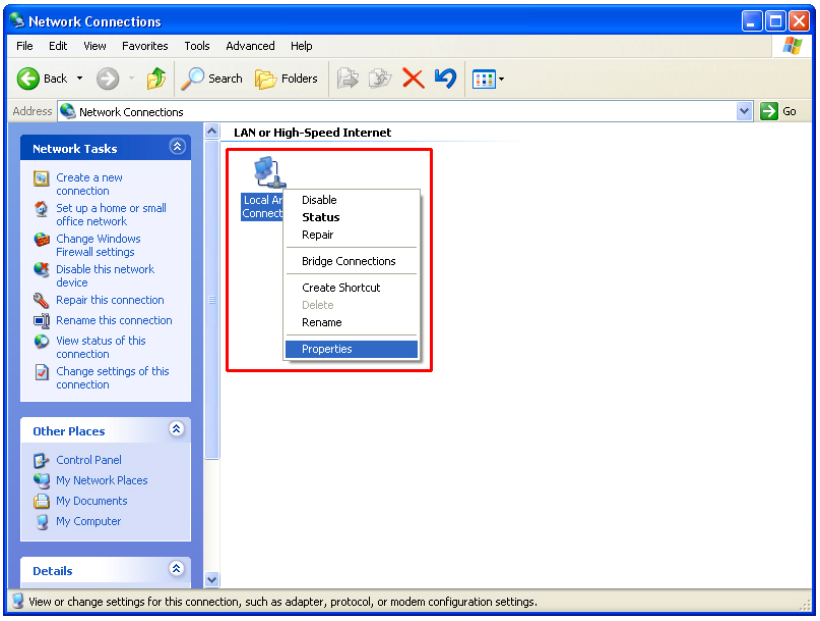
Step 1 Go to **Start > Settings > Control Panel > Network and Internet Connections**.



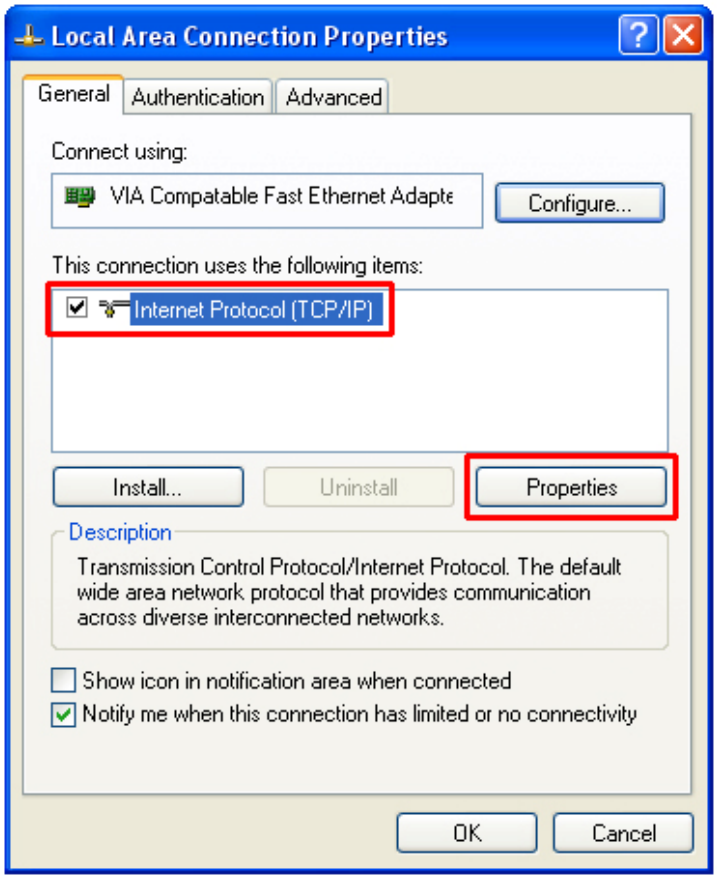
Step 2 Select **Network Connections**.



Step 3 Right-click on **Local Area Connection** and select **Properties**.

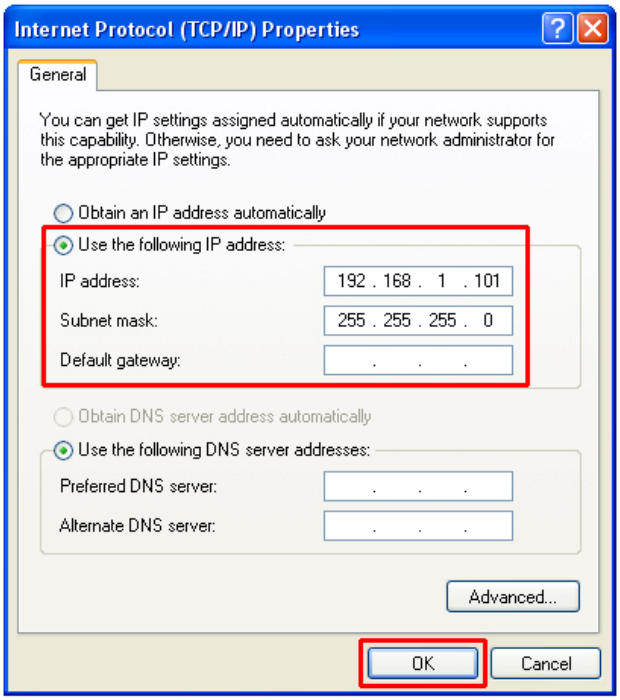


Step 4 Select **Internet Protocol (TCP/IP)** and click on **Properties**.



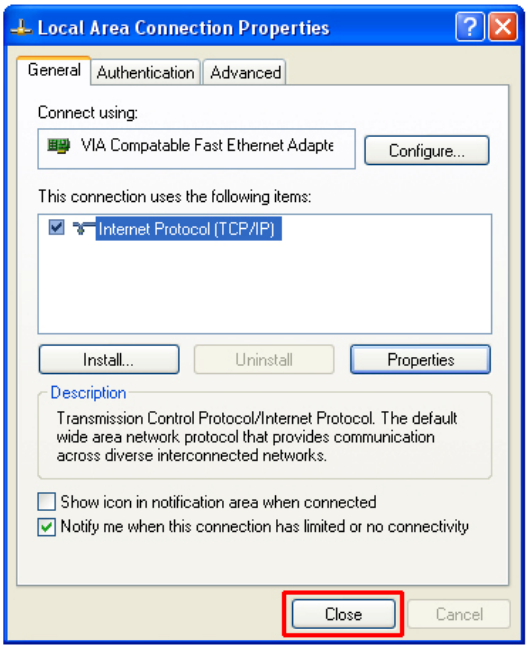
Step 5 Select **Use the following IP address** and enter the following:

IP Address: **192.168.1.101**
Subnet Mask **255.255.255.0**

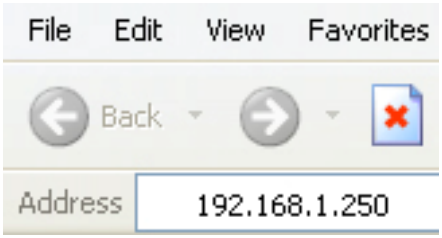

Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
192 . 168 . 1 . 101
Subnet mask:
255 . 255 . 255 . 0
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

Click **OK** when done.

Step 6 Click **Close**.



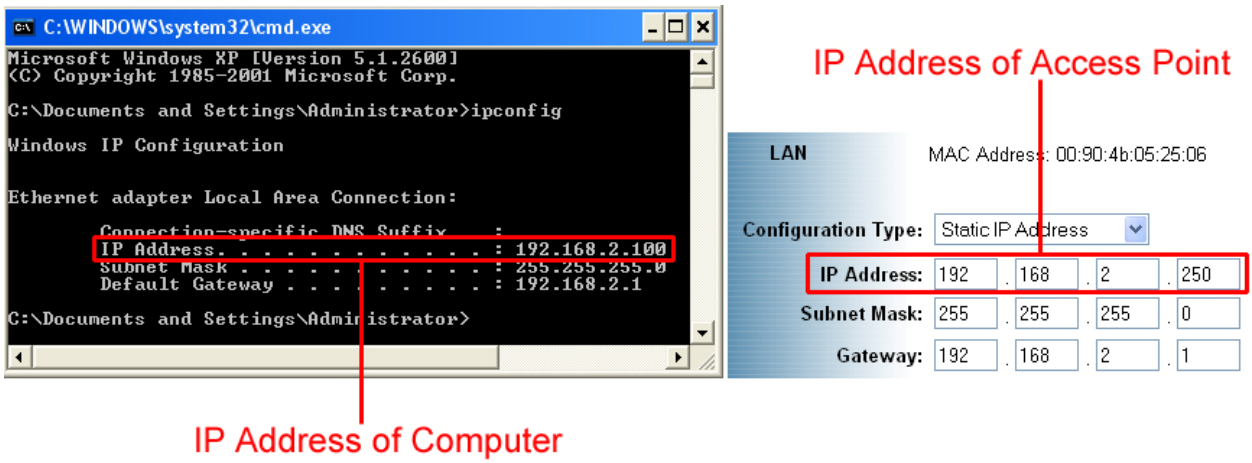
Step 7 Open your web browser (Internet Explorer or Netscape) and enter **192.168.1.250** in the Address Bar and press **Enter**.



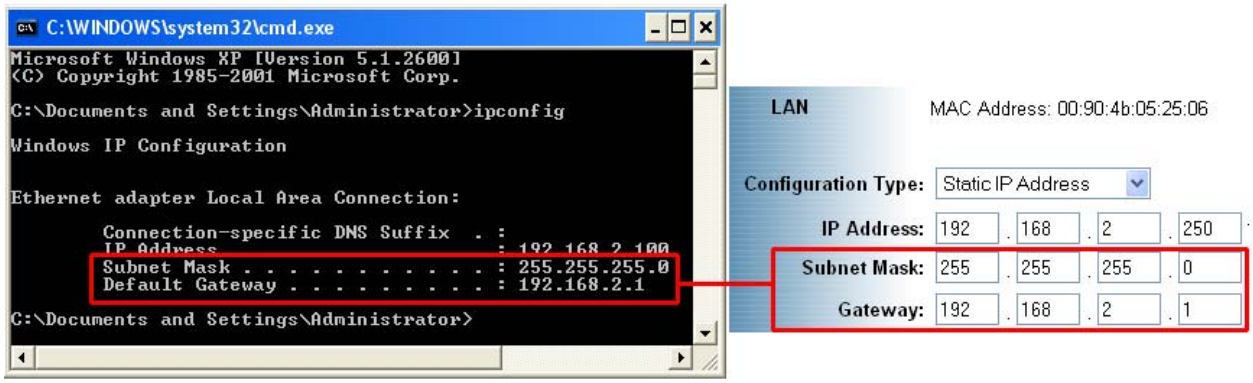
Step 8 Enter **admin** for both the **User name** and **Password** and click **OK**.

Step 9 Refer to the Network Settings you've written down from the previous section and change the first three numbers of the IP Address to match your local network address.

For example: If your computer's **IP Address** is **192.168.2.100**, change the first three numbers to **192.168.2** as well but leave the last number **250** alone.

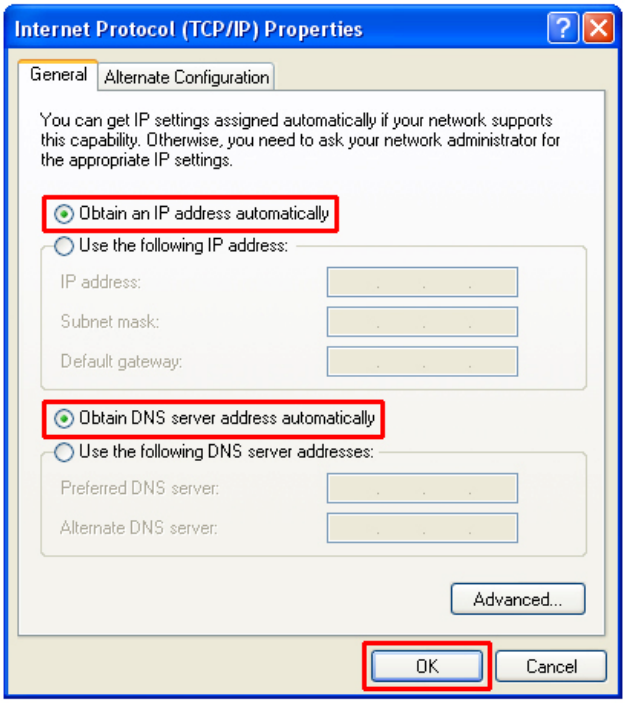

C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\Administrator>ipconfig
Windows IP Configuration
Ethernet adapter Local Area Connection:
IP Address. . . . . : 192.168.2.100
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.2.1
C:\Documents and Settings\Administrator>
IP Address of Access Point
LAN
MAC Address: 00:90:4b:05:25:06
Configuration Type: Static IP Address
IP Address: 192 . 168 . 2 . 250
Subnet Mask: 255 . 255 . 255 . 0
Gateway: 192 . 168 . 2 . 1
IP Address of Computer

Step 10 Enter the **Subnet Mask** and **Gateway** fields with exactly the same values as you got from running **ipconfig**.

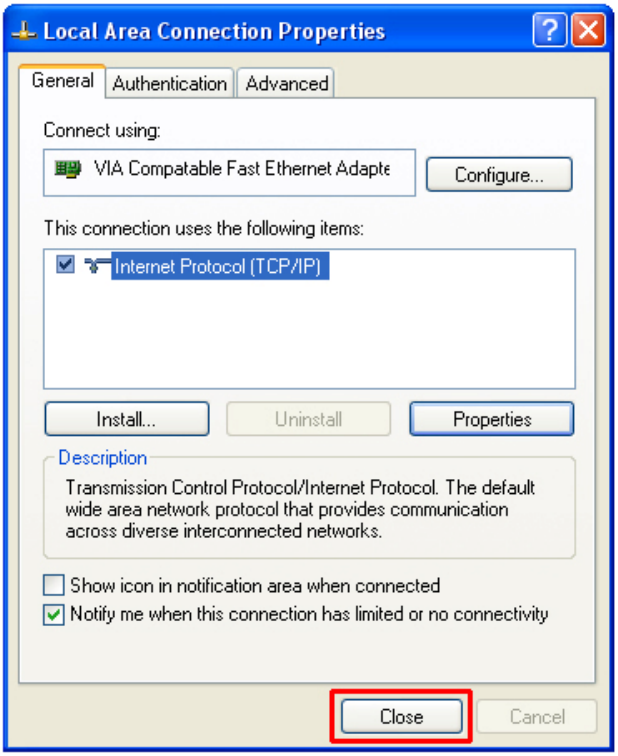

C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\Administrator>ipconfig
Windows IP Configuration
Ethernet adapter Local Area Connection:
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.2.1
C:\Documents and Settings\Administrator>
LAN
MAC Address: 00:90:4b:05:25:06
Configuration Type: Static IP Address
IP Address: 192 . 168 . 2 . 250
Subnet Mask: 255 . 255 . 255 . 0
Gateway: 192 . 168 . 2 . 1

Step 11 Click **Apply** to save the changes.

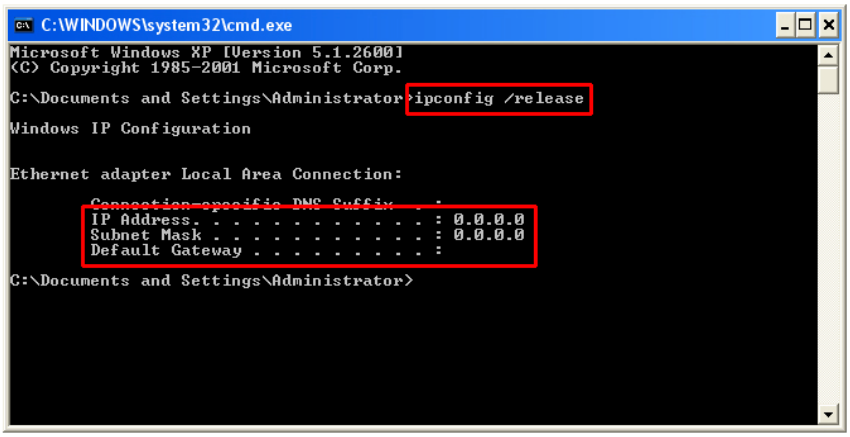
Step 12 Return to **Internet Protocol (TCP/IP) Properties** and select **Obtain an IP address automatically** and **Obtain DNS server address automatically** and click **OK**.


Internet Protocol (TCP/IP) Properties
General
Alternate Configuration
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

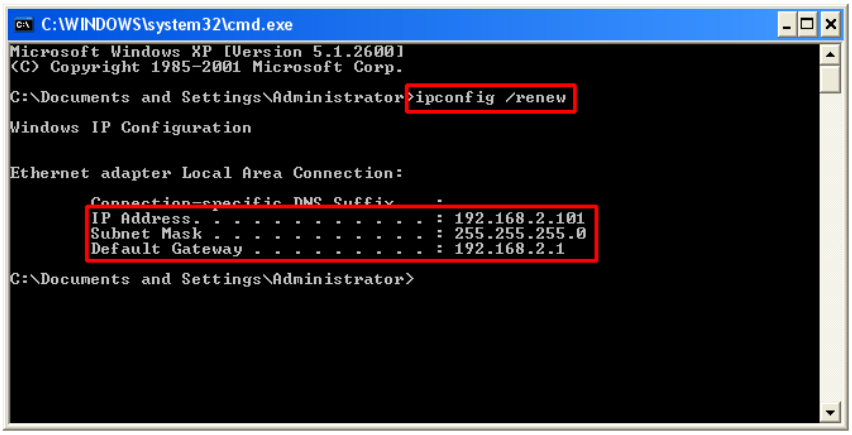
Step 13 Click **Close**.



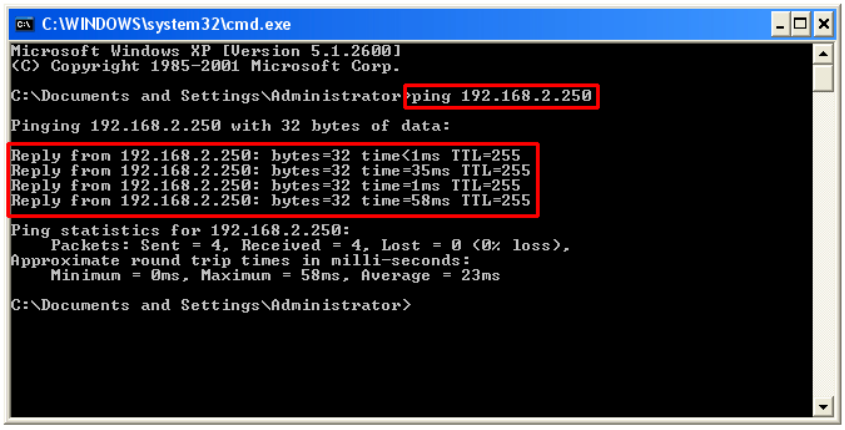
Step 14 At the Command Prompt, type **ipconfig /release** and press **Enter**. You should see all 0's as shown below.


C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\Administrator>ipconfig /release
Windows IP Configuration
Ethernet adapter Local Area Connection:
IP Address. . . . . : 0.0.0.0
Subnet Mask . . . . . : 0.0.0.0
Default Gateway . . . . . :
C:\Documents and Settings\Administrator>

Step 15 Type **ipconfig /renew** and press **Enter**. You should receive a valid IP address as shown below.


C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\Administrator>ipconfig /renew
Windows IP Configuration
Ethernet adapter Local Area Connection:
IP Address. . . . . : 192.168.2.101
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.2.1
C:\Documents and Settings\Administrator>

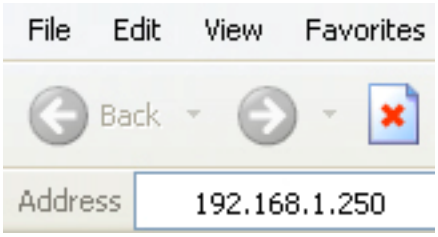
Step 16 Type **ping 192.168.2.250** and press **Enter**. You should receive four Reply from messages as shown below.


C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\Administrator>ping 192.168.2.250
Pinging 192.168.2.250 with 32 bytes of data:
Reply from 192.168.2.250: bytes=32 time<1ms TTL=255
Reply from 192.168.2.250: bytes=32 time=35ms TTL=255
Reply from 192.168.2.250: bytes=32 time=1ms TTL=255
Reply from 192.168.2.250: bytes=32 time=58ms TTL=255
Ping statistics for 192.168.2.250:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 58ms, Average = 23ms
C:\Documents and Settings\Administrator>

5. Using Web Configuration Utility

You can use the Access Point's built-in Web Configuration Utility to configure the encryption settings and operating modes. This section describes how to configure the Access Point's wireless and security settings.

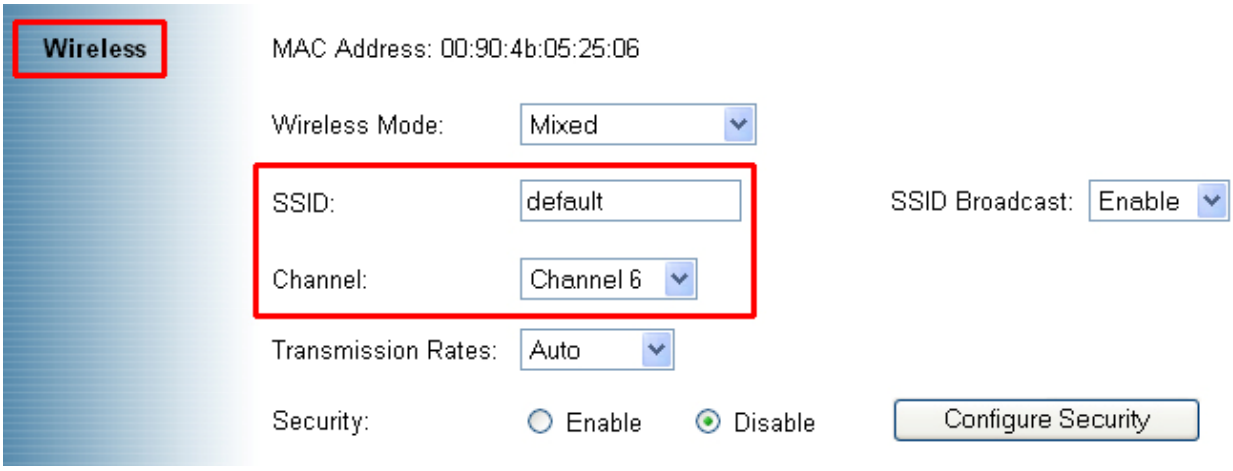
Step 1 Open your Web Browser (Internet Explorer or Netscape), enter the IP Address of the Access Point (default: **192.168.1.250**) in the Address Bar and press **Enter**.



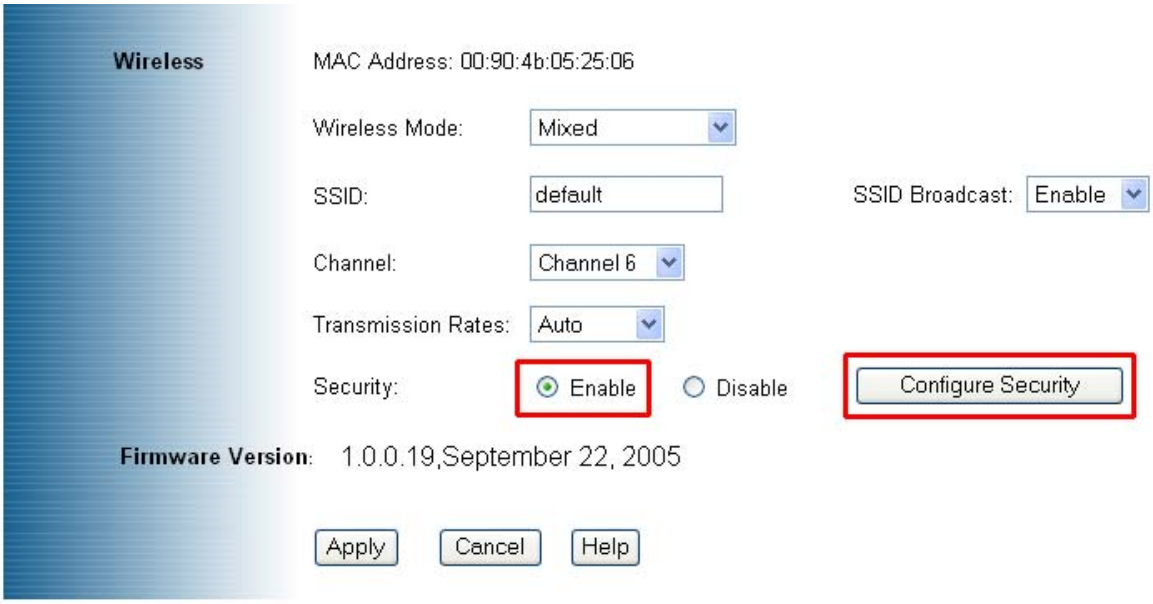
Note: *If you have changed the IP Address of the Access Point, as described in the previous section, enter its new IP Address instead of the default.*

Step 2 Enter **admin** for both the **User name** and **Password** and click **OK**.

Step 3 At the Wireless section, enter the **SSID (Network Name)** of your wireless network and the **channel** number.



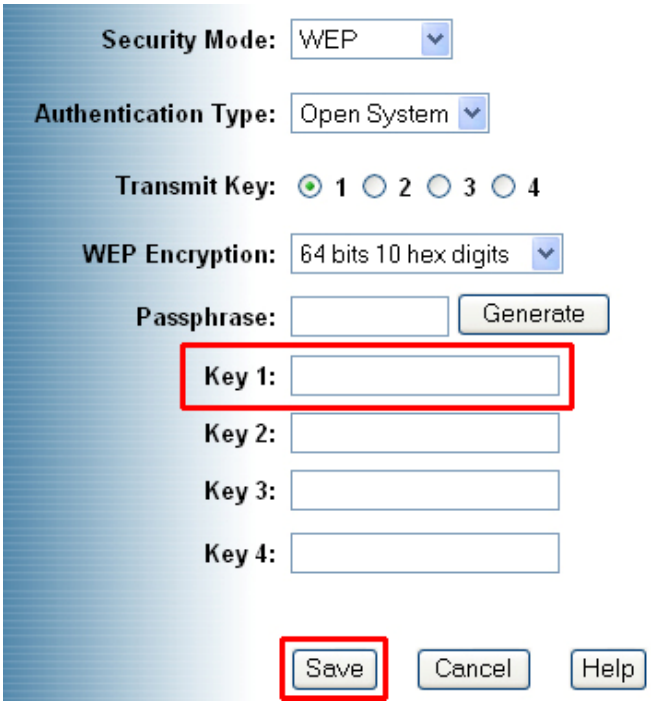
Step 4 If you have enabled encryption for your wireless network, you'll need to configure the same security settings on the Access Point as well. Select **Enable** and click on **Configure Security**.



WEP

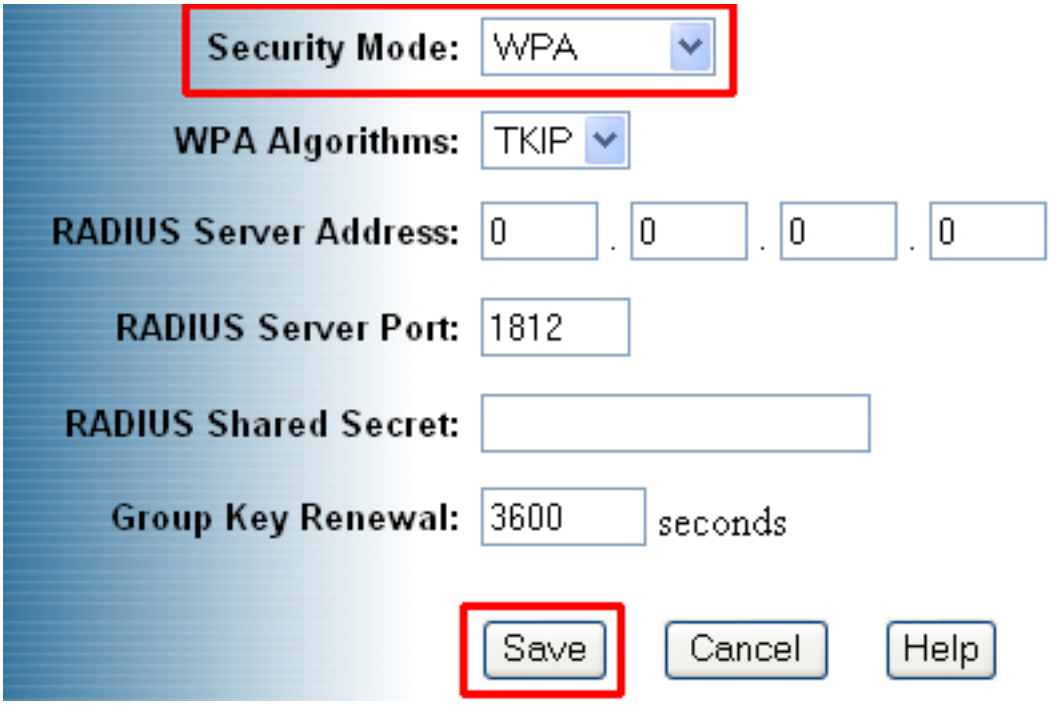
Step 5a Select the same level of WEP encryption (**64-Bits** / **128-Bits**) of your wireless network from the drop-down menu.

Step 5b Enter the same **WEP key (password)** of your wireless network in the **Key 1** field and click **Save**. Skip to **Step 8**.



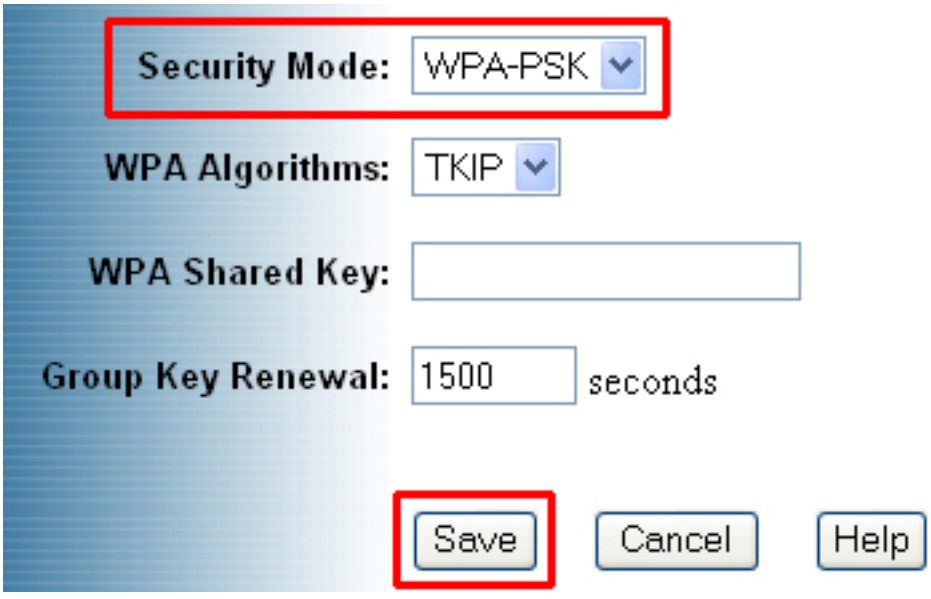
WPA

Step 6 Select **WPA** from the drop-down menu and enter all the applicable fields. Click **Save** and proceed to **Step 8**.

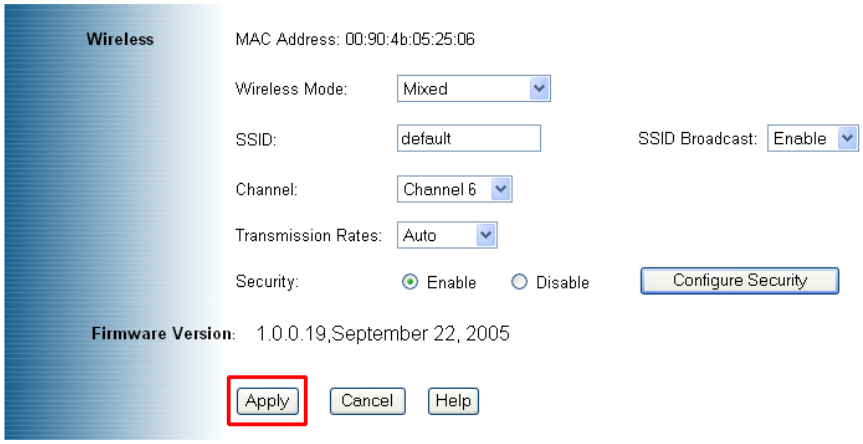


WPA-PSK

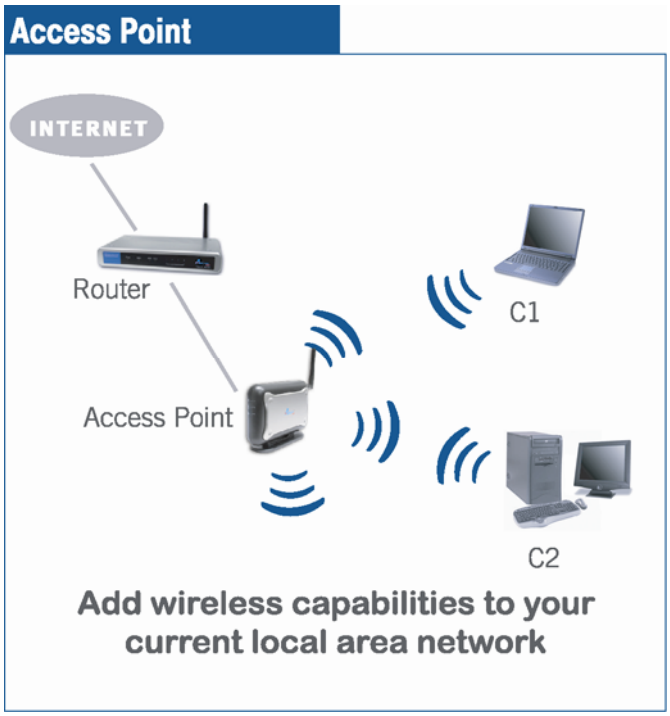
Step 7 Select **WPA-PSK** from the drop-down menu and enter all the applicalble fields. Click **Save** and proceed to **Step 8**.



Step 8 Click **Apply** to save the changes.



Step 9 For best result, place the Access Point at a central location where it is accessible to all the wireless computers.



6. Connecting to the Access Point

Once you have properly configured the Access Point, your wireless computers should be able to detect its signal.

Use your wireless network adapter's utility to detect and connect to the Access Point. You can identify the Access Point by its **MAC Address**, which is displayed in the **BSSID** field of your wireless network adapter's utility.

You can check the Access Point's **MAC Address** on its bottom label.

AIRLINK 101
Super G wireless Access Point
Model No.:AP421W
This device complies with part 15 of the FCC Rules.
Operation is subject to the following two conditions.
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received,
including interference that may cause undesired operation.
Tested To Comply
With FCC Standards
FCC ID:MXF-A940711G
CE0560
MAC:
0014A5000001
S/N:
047505000001

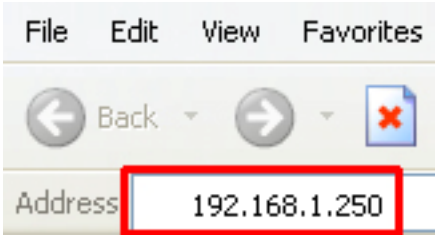
If the signal is weak, try reorienting the Access Point's antenna or relocate the Access Point to a different place.

7. Web Configuration Utility

The Access Point comes with a built-in Web Configuration Utility that allows you to easily configure its various features. This section describes how to use the Web Configuration Utility.

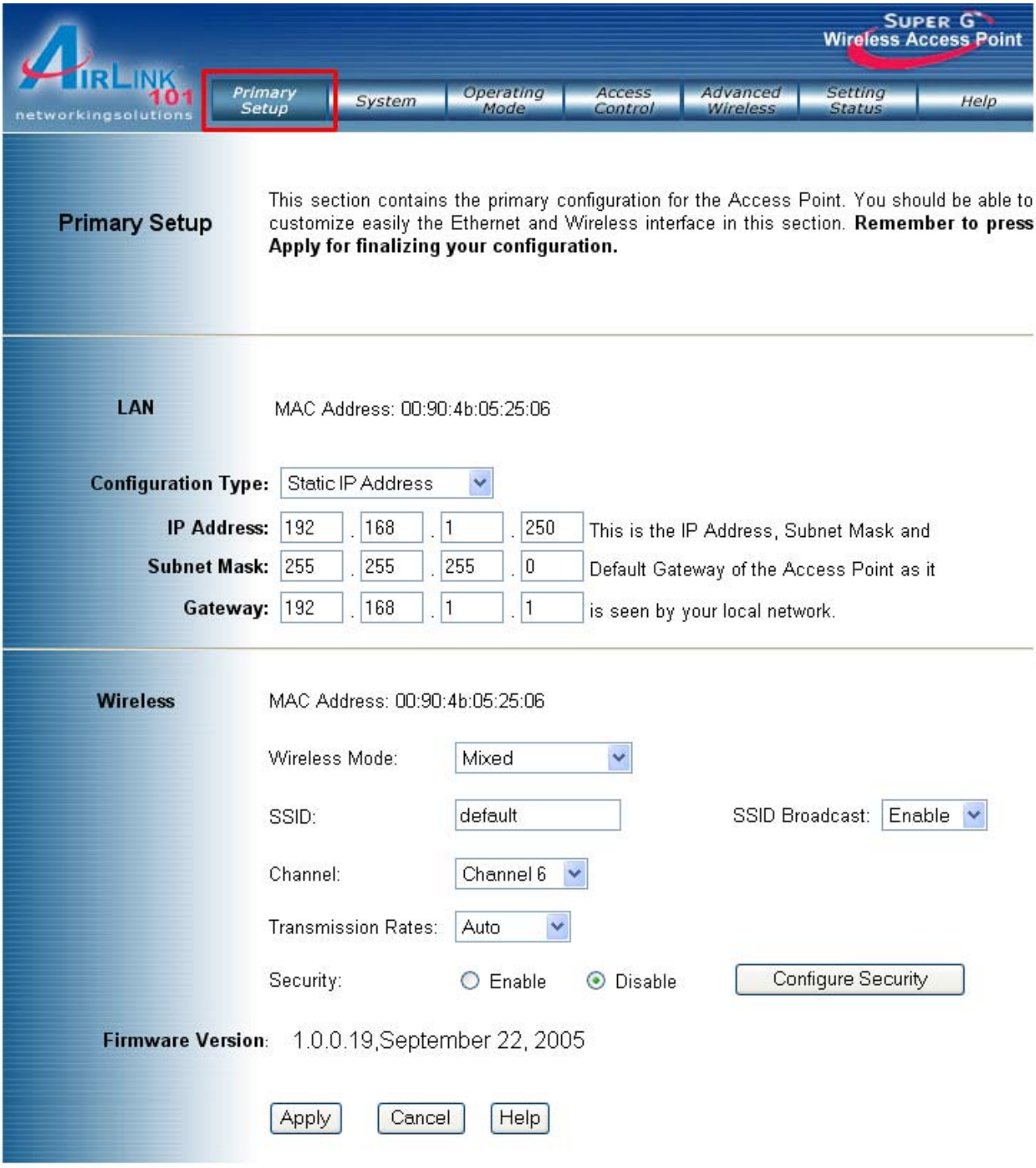
7.1 Primary Setup

Step 1 Open your Web Browser (Internet Explorer or Netscape), enter the default IP Address of the Access Point **192.168.1.250** in the Address Bar and press **Enter**.



Note: *If you have changed the IP Address of the Access Point, enter its new IP Address instead of the default.*

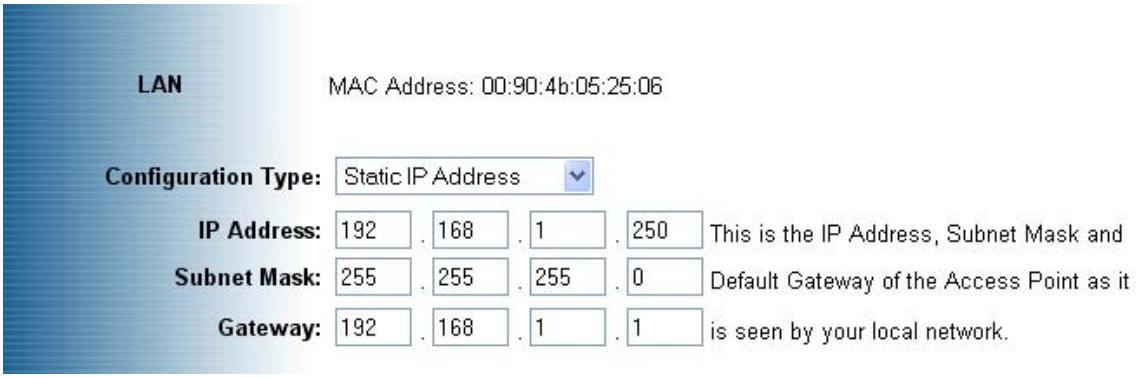
Step 2 Enter **admin** for both the User name and Password fields and click **OK**.


SUPER G
Wireless Access Point
AIRLINK 101
networkingsolutions
Primary Setup
System
Operating Mode
Access Control
Advanced Wireless
Setting Status
Help
Primary Setup
This section contains the primary configuration for the Access Point. You should be able to customize easily the Ethernet and Wireless interface in this section. Remember to press Apply for finalizing your configuration.
LAN
MAC Address: 00:90:4b:05:25:06
Configuration Type: Static IP Address
IP Address: 192 . 168 . 1 . 250
Subnet Mask: 255 . 255 . 255 . 0
Gateway: 192 . 168 . 1 . 1
This is the IP Address, Subnet Mask and Default Gateway of the Access Point as it is seen by your local network.
Wireless
MAC Address: 00:90:4b:05:25:06
Wireless Mode: Mixed
SSID: default
SSID Broadcast: Enable
Channel: Channel 6
Transmission Rates: Auto
Security: Enable Disable
Configure Security
Firmware Version: 1.0.0.19,September 22, 2005
Apply
Cancel
Help

The **Primary Setup** page is the main screen for configuring the Access Point.

You can configure its IP Address and Wireless settings from this page.

LAN

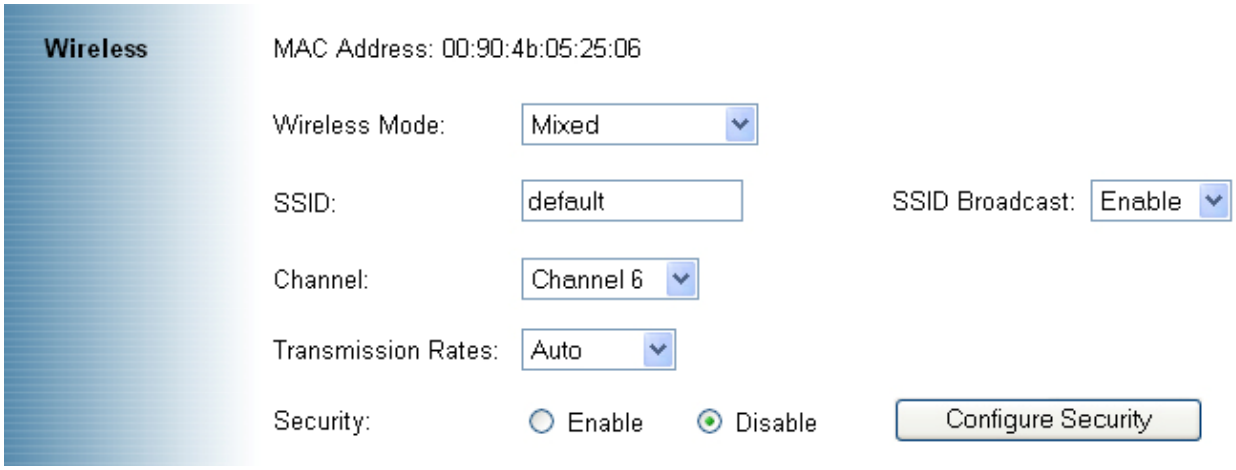

LAN
MAC Address: 00:90:4b:05:25:06
Configuration Type:
Static IP Address
IP Address:
192 . 168 . 1 . 250
This is the IP Address, Subnet Mask and
Subnet Mask:
255 . 255 . 255 . 0
Default Gateway of the Access Point as it
Gateway:
192 . 168 . 1 . 1
is seen by your local network.

MAC Address: Displays the Access Point's MAC Address.

Configuration Type: If you want the Access Point to obtain an IP address automatically from a DHCP server, then select **Dynamic IP Address - DHCP**. If you will assign the Access Point a static IP address, then select **Static IP Address** and enter an IP Address, Subnet Mask, and Default Gateway address in the corresponding fields.

Note: It is recommended that you assign a static IP Address for the Access Point so you can access its web configuration utility with ease.

Wireless



Wireless Mode: Choose from **Mixed** (B & G), **G-only**, **B-only**, or **Super G™** as the wireless mode that your wireless network is using.

SSID: The SSID is the network name shared among all devices in a wireless network. It must be identical for all devices in the wireless network.

SSID Broadcast: To broadcast the Access Point's SSID, select **Enable**. When wireless clients survey the local area for wireless networks to associate with, they will pick up the SSID broadcast by the Access Point. If you do not want to broadcast the Access Point's SSID, then select **Disable**.

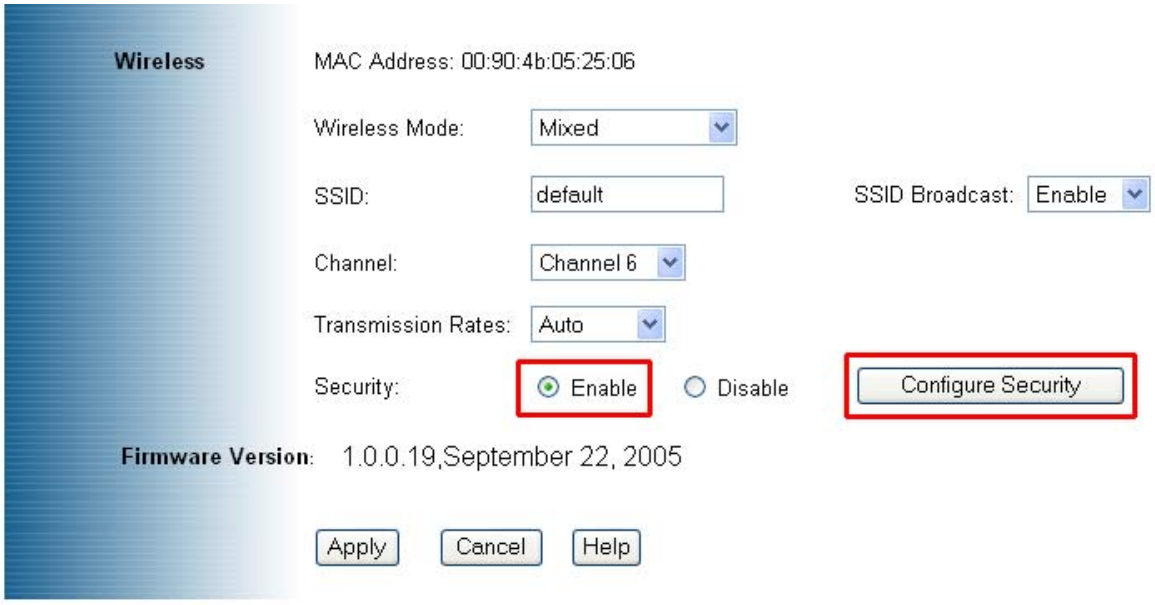
Channel: Select the appropriate channel from the list provided to correspond with your network settings, All devices in your wireless network must use the same channel in order to function correctly. Select Auto (DFS) to have the Access Point automatically scan for a clear channel.

Note: If you enable Auto (DFS), then you cannot specify a channel setting.

Transmission Rates: The default setting is **Auto**. The range is different according to the Wireless Mode you select.

You can select a range of transmission speeds, or you can keep the default setting-Auto to have the Access Point automatically uses the fastest possible data rate. Auto-Fallback will negotiate the best possible connection speed between the Access Point and a wireless client.

Security: Choose **Enable** to select your security type, or the default setting **Disable** to connect with better performance. Disabling security setting will make your network more vulnerable to intrusion.



Firmware Version: Displays the current firmware version installed.

7.1.1 Wireless Encryption Settings

WEP

Wired Equivalent Privacy (WEP) is an encryption method used to protect your data during wireless communications. These settings must be identical to your existing wireless network's WEP settings. If your network supports WPA or WPA-PSK security, it is recommended that you use those encryptions for better security.

Authentication Type: Choose between **Open System** or **Shared Key**.

Transmit Key: Select a key to be the active key.

WEP Encryption: Choose between **64-bit** and **128-bit** encryption.

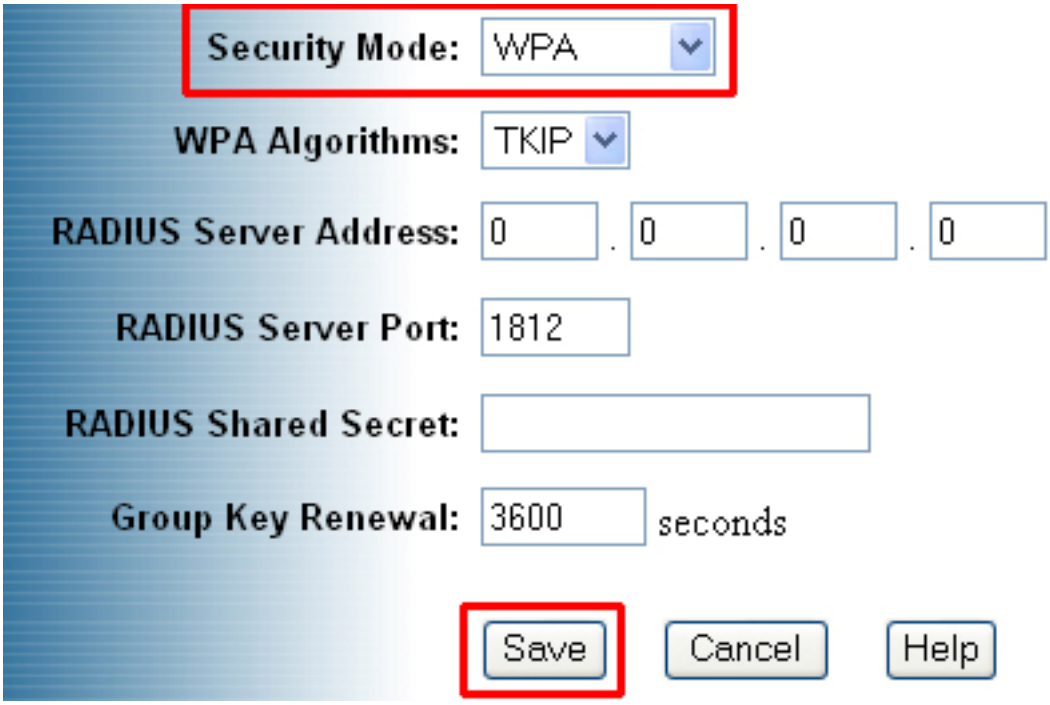
Passphrase: You can enter a passphrase and click on the **Generate** button and the Access Point will automatically generate four WEP keys for you.

Key 1 – 4: Manually assign a passphrase for each key. If you selected **64 bits** encryption, enter **10** HEX characters (0-F) for each key. If you selected **128 bits** encryption, enter **26** HEX characters (0-F) for each key. For each key select either Open System or Shared Key as your authentication.

Click **Save** to apply the changes.

WPA

If your network uses a RADIUS server for authentication, you may select WPA as your encryption setting.



WPA Algorithms: Select the WPA Algorithm (**TKIP** or **AES**) that your network uses.

RADIUS Server Address: Enter the **IP Address** of your RADIUS server.

RADIUS Server Port: Enter the Authentication Port number of your RADIUS server.

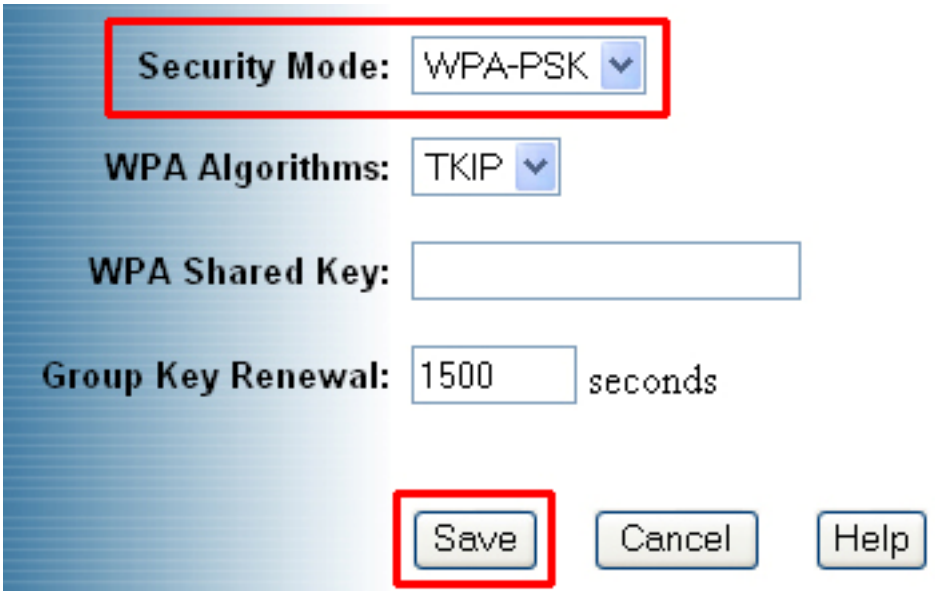
RADIUS Shared Secret: Enter the Shared Key for your RADUS server.

Group Key Renewal: Enter the key renewal time (in seconds).

Click **Save** to apply the changes.

WPA-PSK

If your network supports WPA-PSK, it is recommended that you use this encryption setting for stronger security over WEP.



WPA Algorithms: Select the WPA Algorithm (**TKIP** or **AES**) that your network uses.

WPA Shared Key: Enter a passphrase for your wireless network. The key should be 8 ~ 63 characters in alphanumeric.

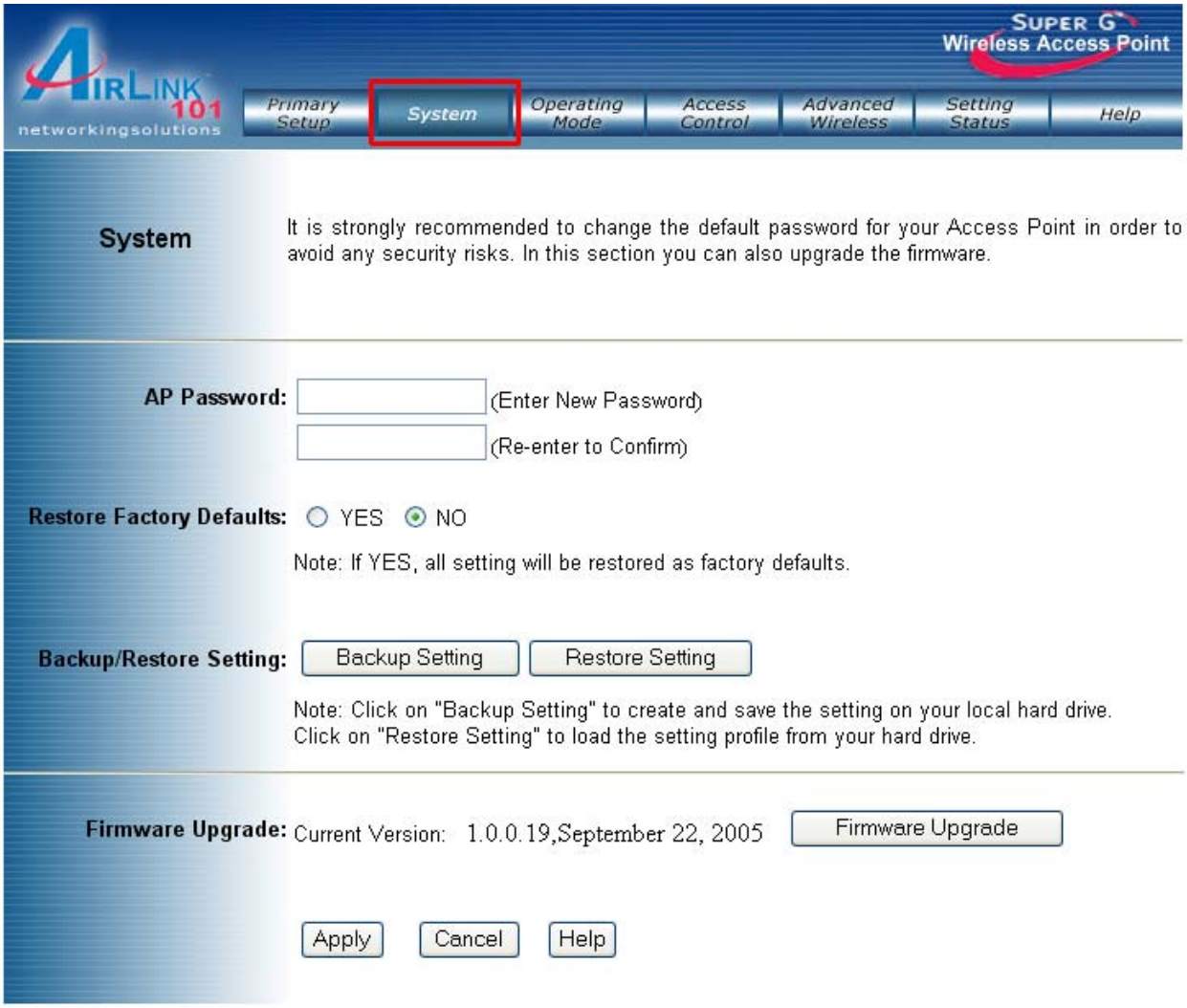
Group Key Renewal: Enter the desired key renewal time in seconds.

Note that these settings must be exactly the same as your access point/wireless router.

Click **Save** to apply the changes.

7.2 System

The System page allows you to change the Access Point's login password as well as other administrative functions.



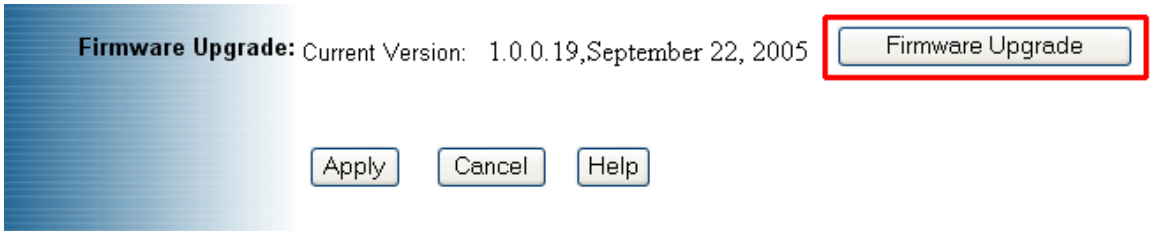
AP Password: Enter the new login password and re-enter to confirm the new password. This is the password used for logging into the Access Point's Web Configuration Utility.

Restore Factory Defaults: Select **Yes** and click **Apply** to reset all of the settings to factory default.

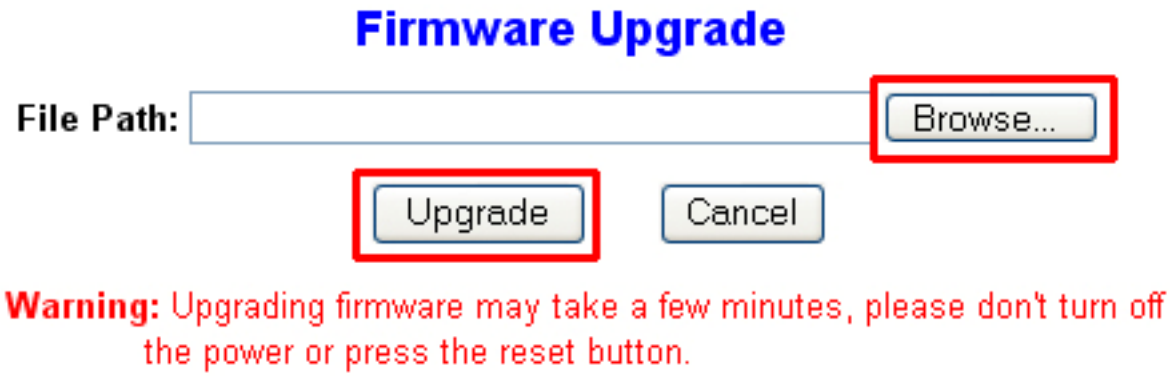
Backup/Restore Setting: Click on the **Backup Setting** button to save your settings as a file in your PC. Later when you want to restore the settings, just click on the **Restore Setting** button and browse to the previously saved file.

Firmware Upgrade: Click on the Firmware Upgrade button to update the firmware. You can download the updated firmware from our web site at www.airlink101.com

Step 1 Unzip the new firmware and then click on the **Firmware Upgrade** button.

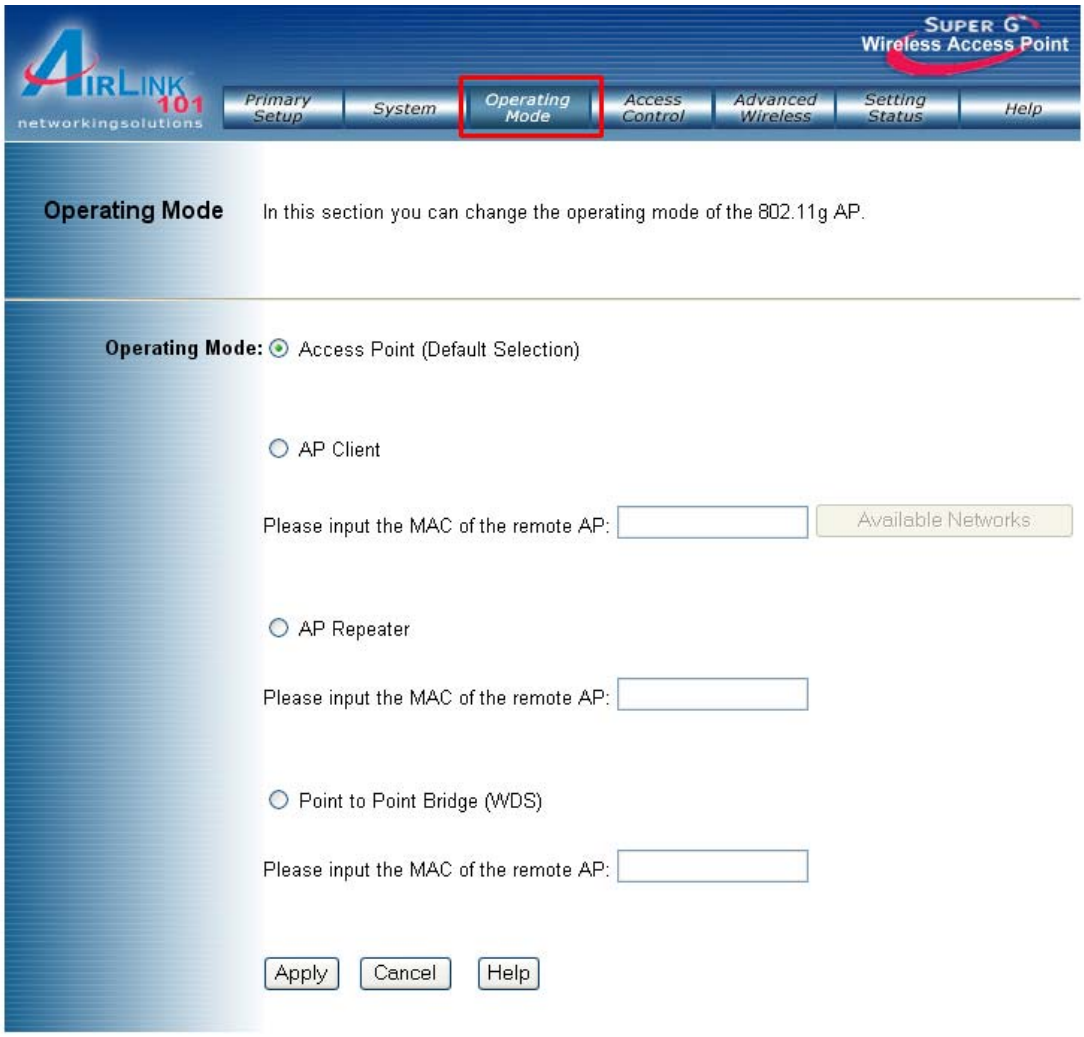


Step 2 Click on **Browse** to locate the new firmware and click on **Upgrade** to update the firmware.


Firmware Upgrade
File Path:
Browse...
Upgrade
Cancel
Warning: Upgrading firmware may take a few minutes, please don't turn off the power or press the reset button.

7.3 Operating Mode

The Operating Mode page allows you to select different functions according to your needs.



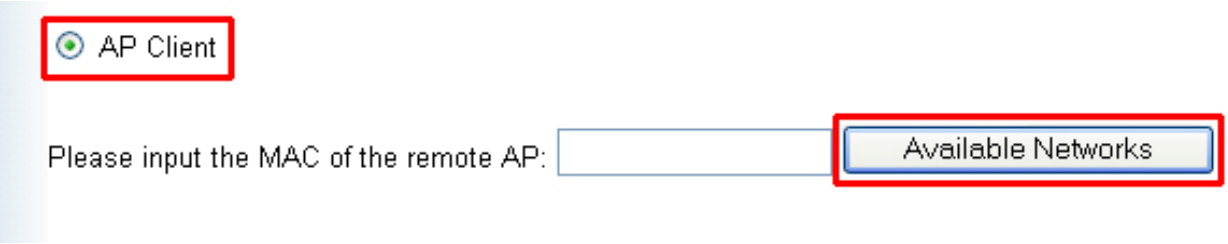
Access Point: This mode allows your wireless computers to connect to your wired network. (Default mode)

Click **Apply** to save the changes.

AP Client

The AP Client mode converts the Access Point to a wireless network adapter, allowing the network device such as your computer or game console to become a wireless client.

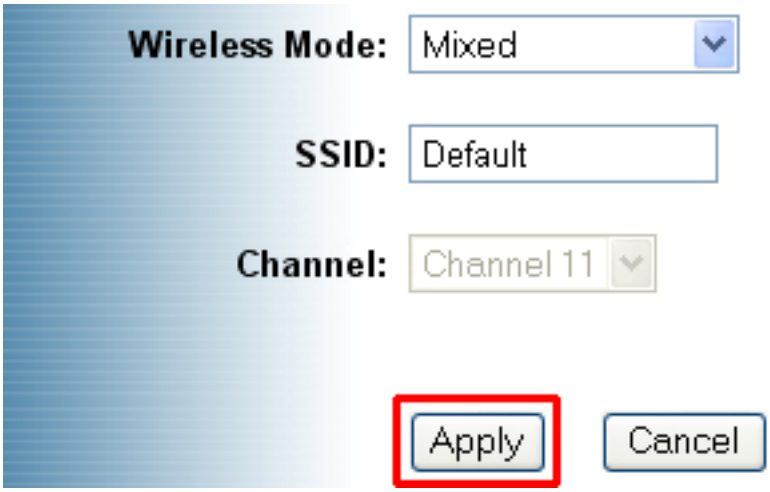
Step 1 Select **AP Client** and enter the MAC address of the remote AP or click on the **Available Networks** button to scan for any available wireless network.



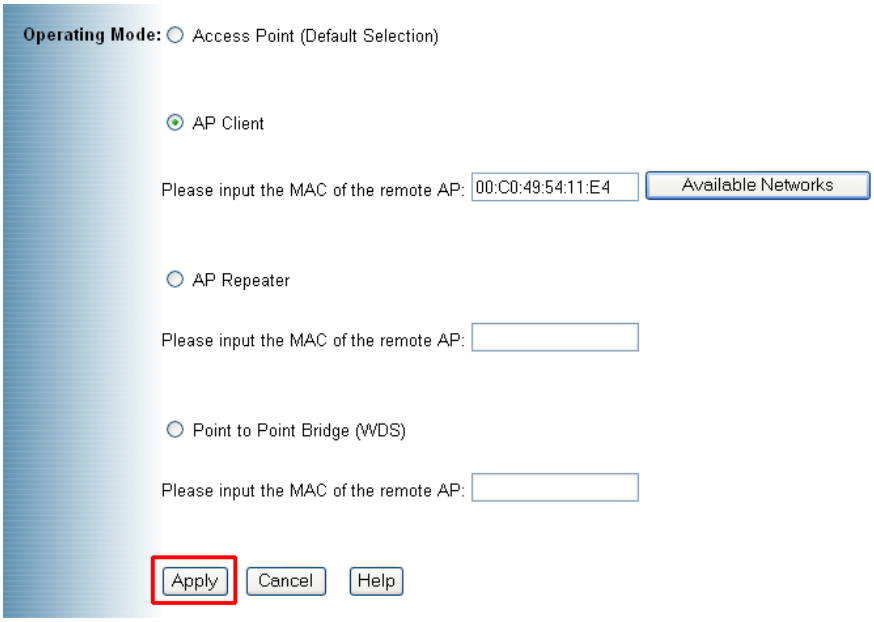
Step 2 Select the desired wireless network from the list.

	SSID	MAC address	Channel	Signal Strength(%)	Mode
○		00:02:2D:2B:A4:4C	1	16	802.11b - Infra
○		00:12:17:1D:6D:CE	6	4	802.11g - Infra
○	Default	00:0D:72:20:1D:29	6	32	802.11b - Infra
○		00:11:50:2B:84:A9	6	6	802.11g - Infra
○		00:C0:49:54:11:E4	11	10	802.11g - Infra

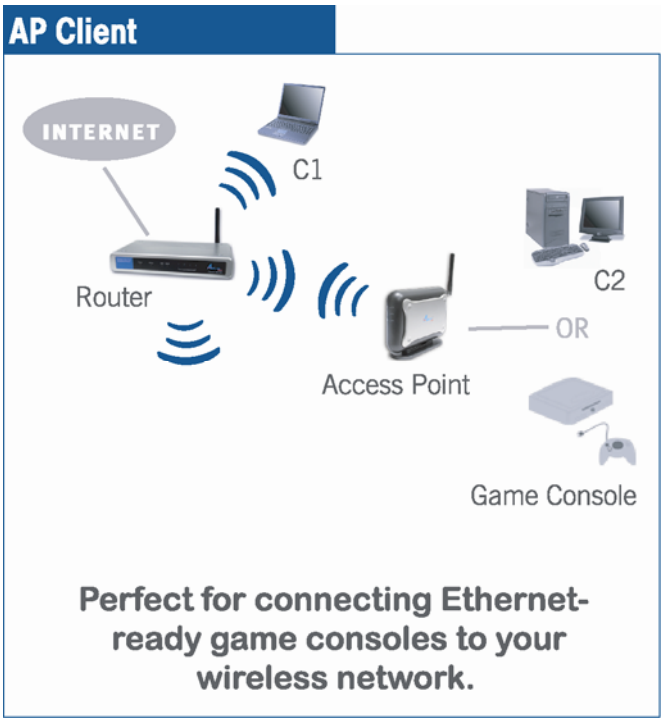
Step 3 Click **Apply** to confirm the selection.



Step 4 Click **Apply** to save the changes.



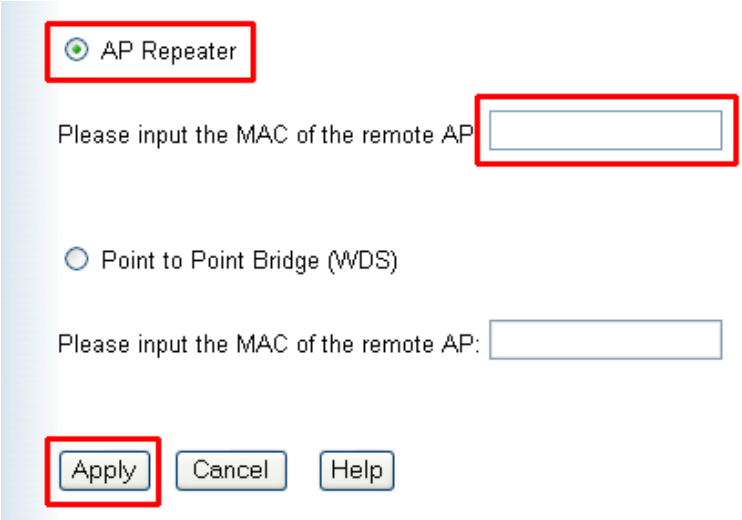
Step 5 Once the Access Point has restarted, you may disconnect it from the wireless router and connect it to the Ethernet port of your computer or game console.



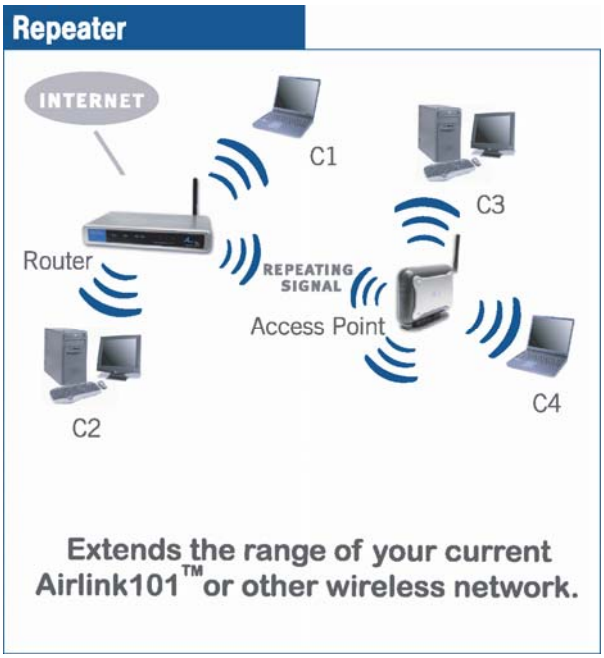
AP Repeater

The AP Repeater mode converts the Access Point to a wireless repeater. By extending the wireless signal of the source AP/wireless router, the wireless coverage is expanded.

Step 1 Select **AP Repeater** and enter the MAC address of the remote AP (source AP/wireless router) and click **Apply** to save the changes.



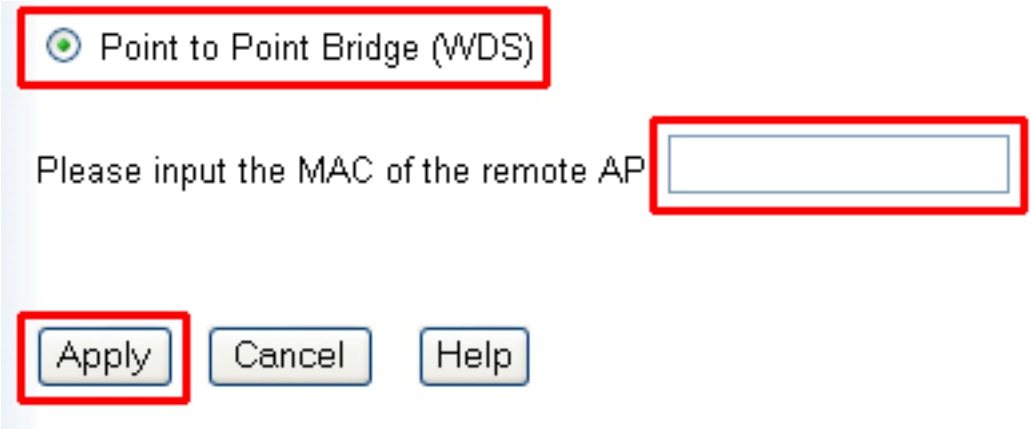
Step 2 Once the Repeater has restarted, you may disconnect it from the wireless router. For best result, place the Repeater at a central location between the wireless router and your wireless computers.



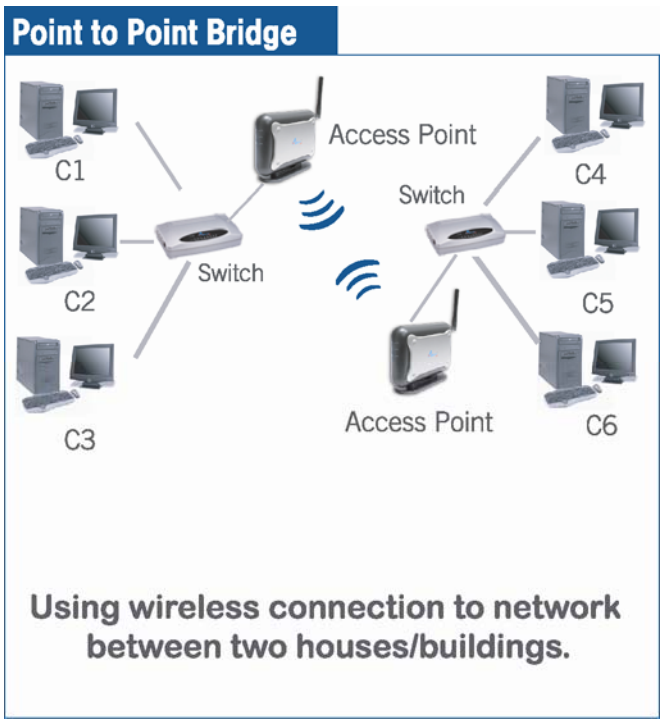
Point to Point Bridge (WDS)

The Point to Point Bridge mode converts the Access Point to a wireless bridge. It bridges the network clients from two physically separate LANS into one virtual LAN.

Step 1 Select **Point to Point Bridge** and enter the MAC address of the remote AP and click **Apply** to save the changes.

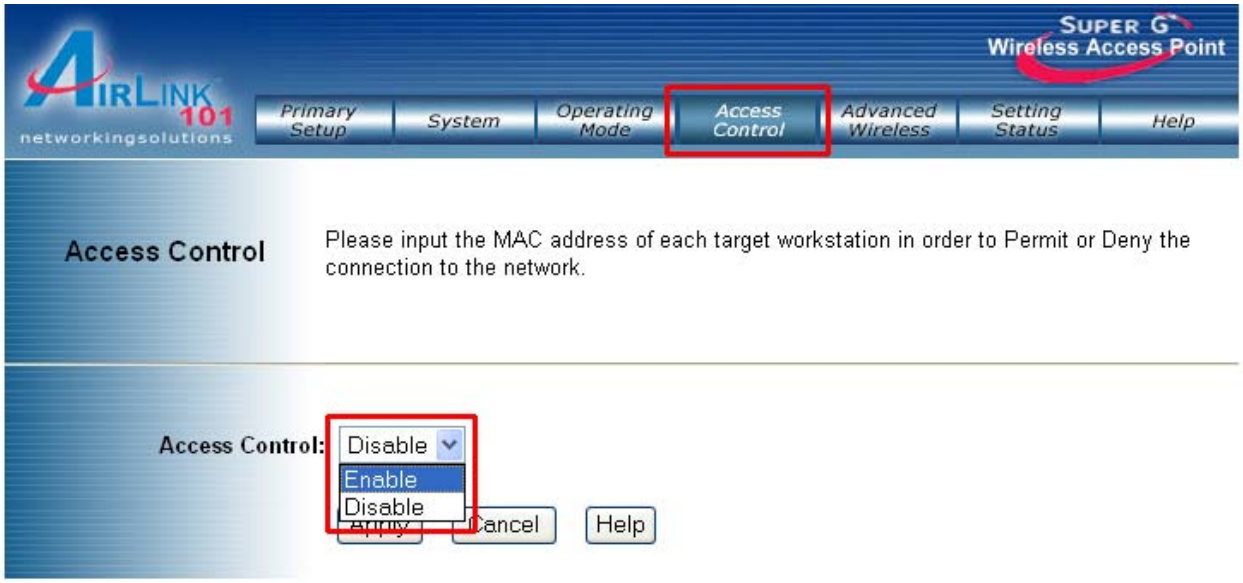


Step 2 Configure the other Access Point with reciprocal settings.

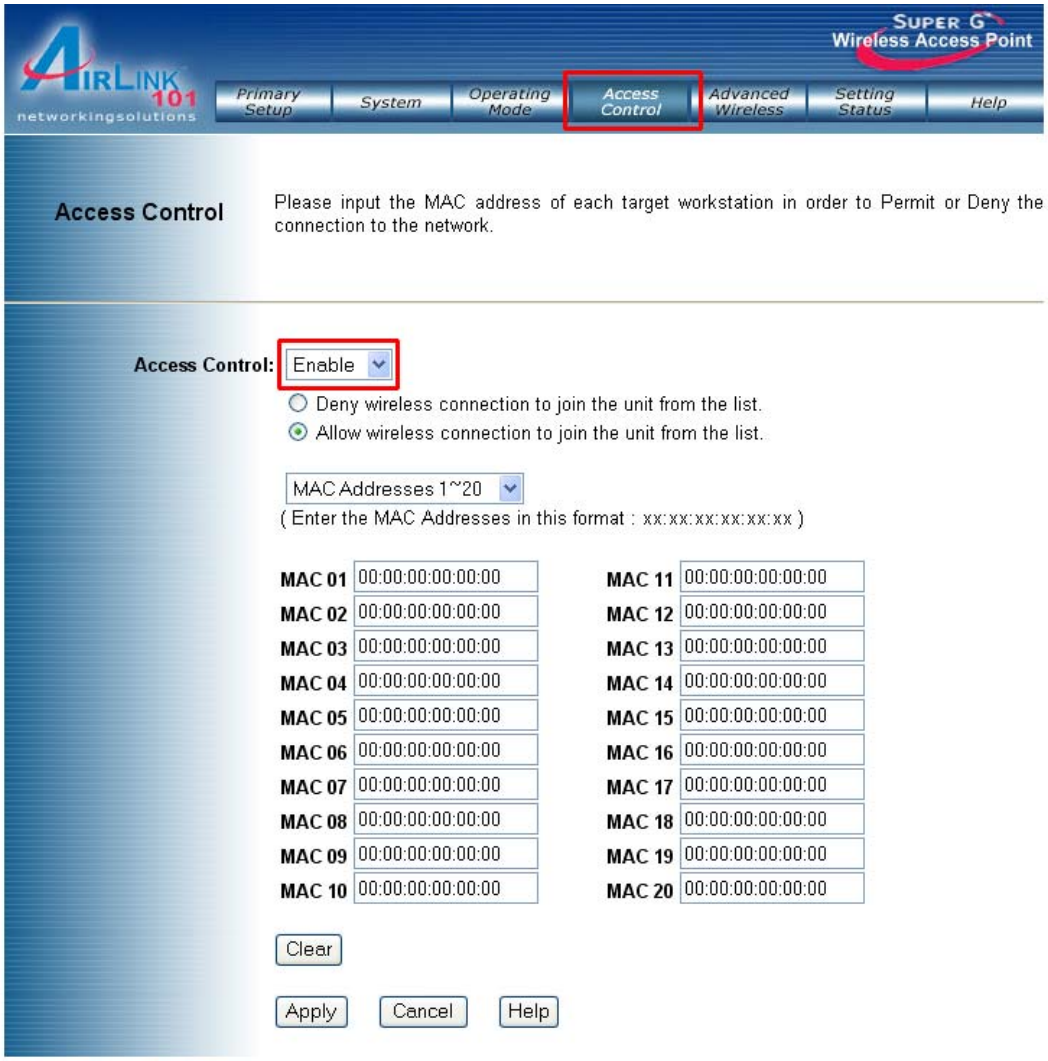


7.4 Access Control

The Access Control page allows you to control which PCs may or may not communicate with the Access Point depending on their MAC address.



Select **Enable** from the drop-down menu to enable Access Control.



If you want to block specific PCs from communicating with the Access Point, select **Deny wireless connection to join the unit from the list**.

If you want to allow specific PCs to communicate with the Access Point, select **Allow wireless connection to join the unit from the list**.

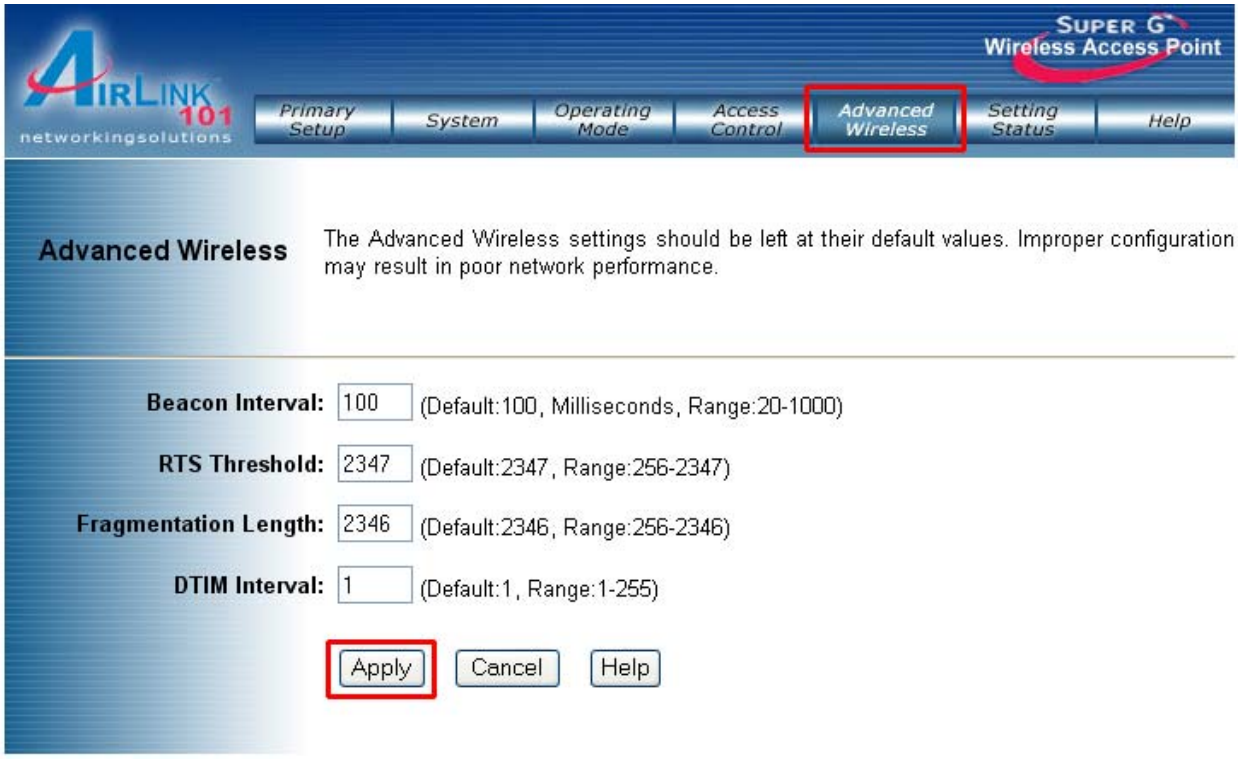
To enter the first 20 MAC addresses, select **MAC Addresses 1~20** and complete the appropriate **MAC** fields. To enter additional MAC addresses, select **MAC Addresses 21~40** and complete the appropriate **MAC** fields.

Complete each field with the MAC address of a specific PC. Each MAC address should be entered in this format: xxxxxxxxxxxx ("x" represents the actual characters of the MAC address).

Click **Apply** to save the changes.

7.5 Advanced Wireless

The Advanced Wireless page allows you to customize data transmission settings. In most cases, the advanced settings on this page should remain at their default values.



Beacon Interval: The default value is **100**. Enter a value between 20 and 1000 milliseconds. The Beacon Interval value indicates the frequency interval of the beacon. A beacon is a packet broadcast by the Access Point to synchronize the wireless network.

RTS Threshold: This value should remain at its default setting of **2347**. The range is 256-2347 bytes.

Should you encounter inconsistent data flow, only minor modifications are recommended. If a network packet is smaller than the preset RTS threshold size, the RTS/CTS mechanism will not be enabled. The Access Point sends Request to Send (RTS) frames to a particular receiving station and negotiates the sending of a data frame. After receiving an RTS, the wireless station responds with a Clear to Send (CTS) frame to acknowledge the right to begin transmission.

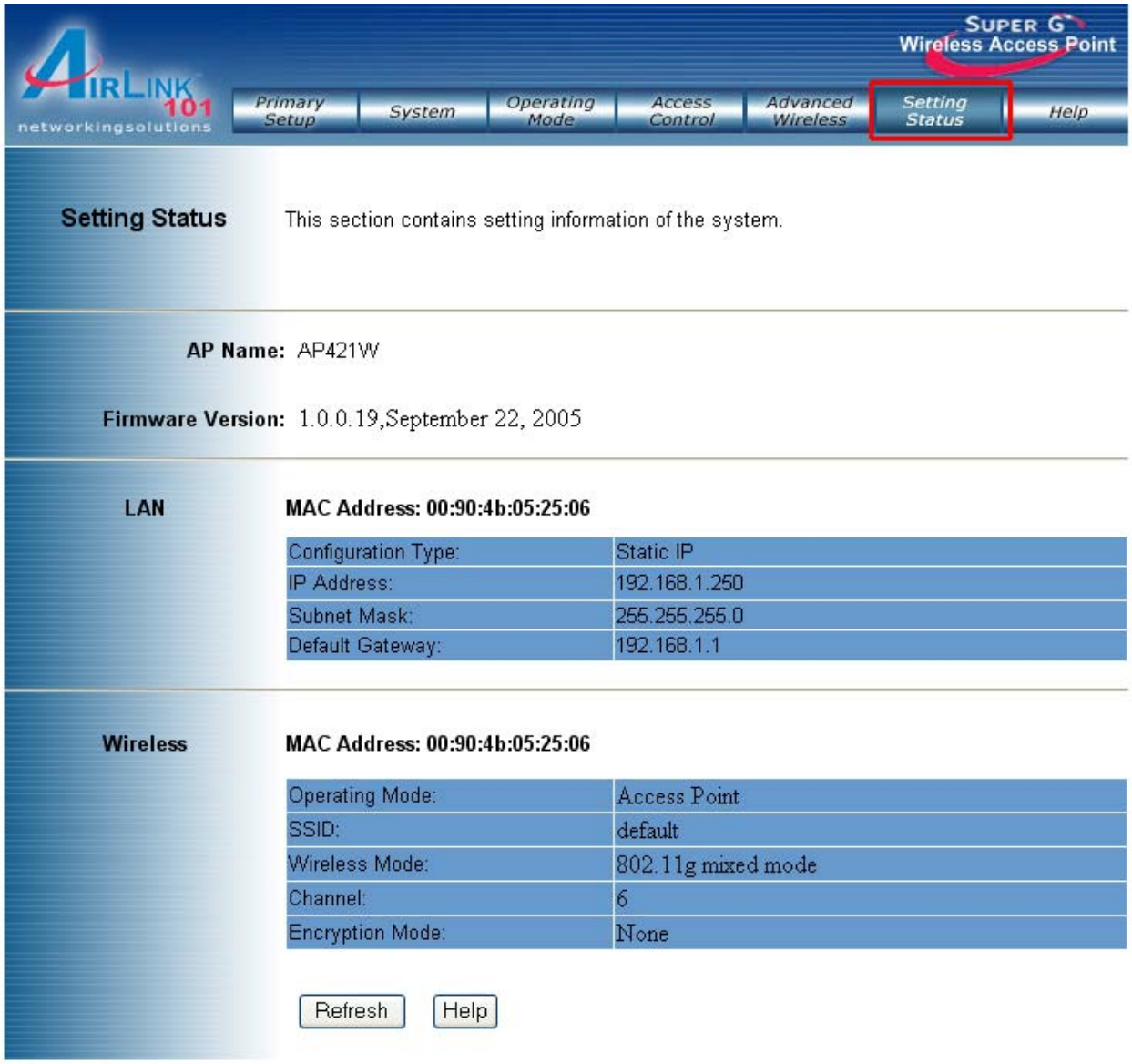
Fragmentation Length: This value should remain at its default setting of **2346**. The range is 256-2346 bytes. It specifies the maximum size for a packet before data is fragmented into multiple packets. A smaller setting means smaller packets, which will create more packets for each transmission. Setting the Fragmentation Threshold too small may result in poor network performance. Only minor modifications of this value are recommended.

DTIM Interval: The default value is **1**. This value, between 1 and 255 milliseconds, indicates the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the Access Point has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. Its clients hear the beacons and awaken to receive the broadcast and multicast messages.

Click **Apply** to save the changes.

7.6 Setting Status

The Setting Status page displays the Access Point's current status and configuration. All information is read-only.



7.7 Help

The Help page provides links to online help files regarding each page of the Web Configuration Utility.

Technical Support

E-mail: support@airlink101.com

Toll Free: 1-888-746-3238

Web Site: www.airlink101.com

* Super G™ technology (108Mbps) can only be obtained when using products with Atheron Super G™ chipset.
* Theoretical maximum wireless signal rate based on Atheros™ Super G™ and IEEE standard 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, mix of wireless products used, radio frequency interference (e.g., cordless telephones and microwaves) as well as network overhead lower actual data throughput rate.

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